

CLAIMS

1. An assay to detect breast cancer, said assay including at least two of the following breast cancer markers: mammaglobin, BU101, and BS106.

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2. A method to detect breast cancer comprising the steps of:

- (a) obtaining a test sample from a patient;
- (b) contacting said test sample with at least two polypeptides selected from the group consisting of mammaglobin, BU101, and BS106; and
- (c) correlating the presence of one or more of the polypeptides of step (b) to breast cancer.

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3. A method of detecting the presence of breast cancer comprising the steps of:

- (a) obtaining a sample from a patient;
- (b) contacting said sample with at least two antibodies specific for BS106, mammaglobin, BU101 and a multimeric antigen (MPA),
wherein said multimeric antigen comprises at least one BU101 polypeptide and at least one mammaglobin polypeptide,
wherein said contact is for a time and under conditions sufficient to allow formulation of antigen/antibody complexes; and
- (c) detecting said complexes wherein the presence of said complex indicates the presence of cancer in said patient.

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4. A method of diagnosing breast cancer in a patient comprising the steps of:

- (a) preparing a tissue section or cell culture derived from a tumor excised from said patient;
- (b) exposing said tissue section or cell culture to an antibody specific for at least two of the following polypeptides: BS106, mammaglobin and BU101 for a time and under conditions sufficient to allow formation of antigen/antibody complexes; and
- (c) localizing presence of said complexes in said tissue section or cell culture, wherein the presence of said complexes indicates the presence of breast cancer in said patient.

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5. A method to detect breast cancer comprising the steps of:

- (a) obtaining a test sample from a patient;
- (b) contacting said test sample with at least two polypeptides selected from the group consisting of gammaglobin, BU101, BS106 and MPA;

and

- (c) correlating the presence of one or more of the polypeptides of step (b) to breast cancer.